

538,283

Rec'd PCT/PTO 10 JUN 2005

10/538283

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 June 2004 (24.06.2004)

PCT

(10) International Publication Number
WO 2004/054304 A1

(51) International Patent Classification⁷: **H04Q 7/38**,
H04L 12/28, G01S 5/02

(21) International Application Number:
PCT/IB2003/005347

(22) International Filing Date:
21 November 2003 (21.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0228807.4 11 December 2002 (11.12.2002) GB

(71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SIMONS, Paul**,

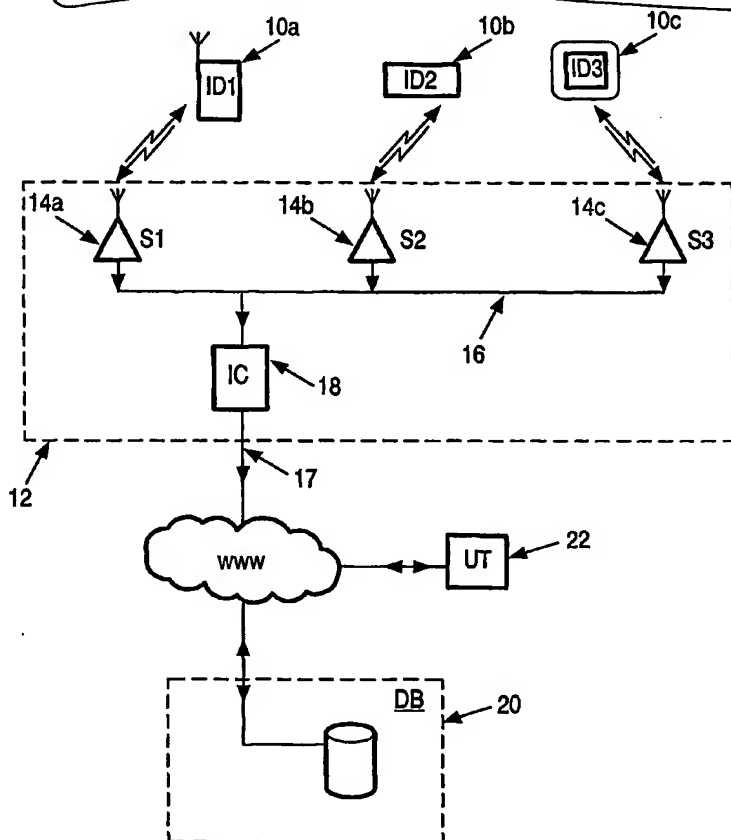
R. [GB/GB]; c/o Philips Intellectual Property & Standards, Cross Oak Lane, Redhill, Surrey RH1 5HA (GB).
GOUGH, Paul, A. [GB/GB]; c/o Philips Intellectual Property & Standards, Cross Oak Lane, Redhill, Surrey RH1 5HA (GB).
PENNA, David, E. [GB/GB]; c/o Philips Intellectual Property & Standards, Cross Oak Lane, Redhill, Surrey RH1 5HA (GB).

(74) Agent: **WHITE, Andrew, G.**; Philips Intellectual Property & Standards, Cross Oak Lane, Redhill, Surrey RH1 5HA (GB).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: **LOCATION TRACKING OF PORTABLE DEVICES IN A WIRELESS NETWORK**



(57) Abstract: A method and system for anonymously and opportunistically tracking the location of a portable device in a wireless infrastructure is described. The system comprises an installed infrastructure (12) in for example a shopping mall, the infrastructure having short range radio stations (14a, 14b) primarily installed as wireless information access points. Standard communication between a users device (10a) and a station (14a) is according to a short range radio protocol such as ZigBee in which devices are assigned unique identifiers. In an exchange, the identifier is correlated with location, time and date data and uploaded via a backchannel connection (16) to a database (20) which a user may connect with at a later time. The user, knowing his objects identifier, can therefore access the data to determine where his object last interacted with a station.

WO 2004/054304 A1